Memory card reader with memory stick

Bever Control

http://www.bevercontrol.com

Memory stick User manual
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1 Introduction

The memory cards are based on old technology and users have wanted a new system. To make the exchange as simple as possible for the users, only the hardware is exchanged. The new system uses an USB removable disk, also named memory stick of type DiskOnKey.
For the users in the jumbo there are no changes. In the office the memory card reader is no longer used. Instead, a docking station is used if necessary, or the memory stick is connected directly in the computer.
Technically other USB removable storage devices can be used, but the docking station in the jumbo and in the office is made for DiskOnKey. Jumbos with Windows NT operating system can only use DiskOnKey.

Note that Ramdisk shall still be selected in Bever TEAM when reading or writing to the memory stick, when used as a replacement for memory card.

2 Specifications memory stick

The memory stick uses USB, which is standard on most computers, and can be used together with Windows ME, Windows 2000 and Windows XP.
The memory stick cannot be used together with Windows NT without a special driver, and then only for memory sticks used with the new Bever Win2000NT system.

The capacity on the memory stick is 512 k byte and maximum number of files is 50. The memory stick itself has a capacity of 8 M byte, but because of compatibility with old systems only 512 k bytes are used.
With our new Bever Win2000NT system the full capacity can be used, and memory sticks up to 512 M byte can be delivered.

To use the memory stick as a replacement for memory cards a file called “memcard.img” must exist on the memory stick. This file is created when the memory stick is formatted from Bever TEAM.

3 In the jumbo

The memory card is inserted with the yellow id facing out. It takes up to 10 seconds before the system has acknowledged the memory stick and it can be accessed. So, wait the 10 seconds before attempting to read or write to the disk. If not ready an error message will be displayed.
When the memory stick is inserted, a light emitting diode inside the memory stick will blink slowly. When data is transferred this diode will blink rapidly. An external red light emitting diode will be lit when transmitting data. Just like before

Wait 10 seconds after the rapid blinking has ended when saving logs or system data on the memory stick. If not waiting long enough, data may be lost and the memory stick must be reformatted. If the memory stick starts blinking rapidly again, start the countdown from the beginning. Sometimes the system doesn’t save all data at once, but takes a little break before the files are closed.

4 In the office

Insert the memory stick in the docking station with the identification turned away from the docking station cable. Can also be inserted directly in the computer. When reading or writing to the memory disk, select “Ramdisk” in the menus.

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Use ”Safely remove hardware” from the toolbar before removing the memory stick. Can also be released by right-clicking the removable disk symbol in the explorer.

Warning : See chapter 4.3 Important.

4.1 Formatting the memory stick.

The memory sticks are delivered formatted from Bever Control, but if there are problems with reading a memory stick, it may have to be formatted again. See chapter 5 Troubleshooting. There are to levels of formatting of the memory stick before it can be used. The first one is the standard Windows formatting.
The second formatting is done from Bever TEAM by selecting Format in the interface menu for the memory stick. This formatting generates the file memcard.img on the memory stick.
Warning: There are different procedures for formatting the memory sticks. Depending on if they are used as a replacement for memory cards, or in the new Windows NT4.0 based Bever Win2000NT system.

4.2 First time use of a memory stick

Every memory stick has an identification number, and the first time a memory stick is inserted in a computer with Windows Me, 2000 or XP it’s assigned a drive letter. Next time the same memory stick is inserted it gets the same station letter. Because of this, all network disks and removable disks should be connected the first time memory sticks are connected.

Insert all enclosed memory sticks one by one so that they get the same drive letter.

If the set-up of the computer should be changed, so that some other equipment occupies the drive letter, a new drive letter must be assigned with Windows Disk Manager. See chapter 5 Troubleshooting.

4.3 Important

For Windows Me, 2000 or XP:

If not ” Safely remove hardware” is used and a memory stick is removed before writing data to it is finished and another one is inserted, the new one may get a new drive letter. See chapter 5 Troubleshooting.

5 Troubleshooting

5.1 Problem to read the memory stick in the jumbo

If it’s not possible to read or write to the memory stick 10 seconds after inserting it, continue the troubleshooting in the office.

5.2 Communication error during reading or writing

Try again.

5.3 Missing or wrong drive letter

If the memory stick is not visible in the Explorer program in the office computer, some other equipment most likely uses the assigned drive letter for the memory stick.

Test this by clicking ” Safely remove hardware” . A list of removable hardware will pop up. If DiskOnKey is listed without any drive letter, this is the problem.

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Alternatively the memory stick has got a different drive letter. The procedure to fix the error is described below.

5.3.1 Assigning a knew drive letter

To assign a new drive letter use the Disk Management tool in Windows. This is found by selecting Start, Control Panel, Administrative Tools, Computer Management, Disk management. Right-click the partition marked “Removable” and corresponds to the memory stick. Choose “Assign new drive letter” and select a letter. If a new hard disk or some other equipment occupies the original drive letter, this procedure has to be repeated for all memory sticks. See also editing ini-file below.
If this error is caused by not using “Safely remove hardware”, it only applies to this memory stick.

Warning : Disk Management does not always find the right drive letter if the memory stick is inserted while Disk Management is running. If this happens, stop and restart Disk Managment.

5.3.2 Assigning knew drive letter for memory card replacement:

If the drive letter has to be changed, the file C:\Windows\RDCom.ini must also be updated. In the file correct the line:
[Settings]
RemovableDrive=Q
(Q is the new drive letter)

Running the installation program can also do this. Just answer “No” to exchanging the RDCom.exe program.

5.3.3 Assigning knew drive letter for Bever Win2000 systems:

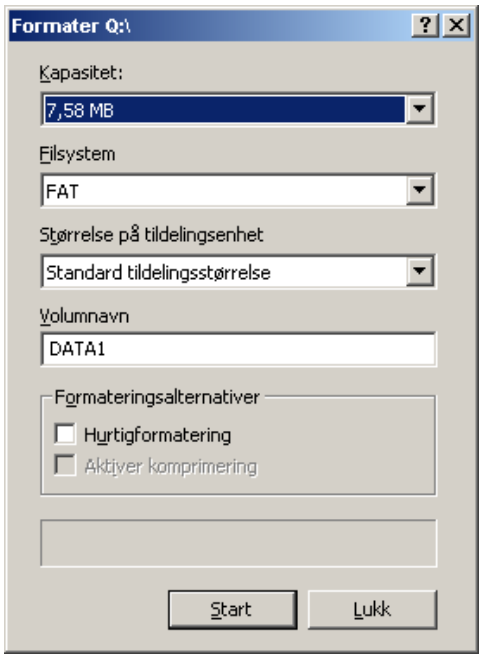
Use Setup – Removable Media in Bever TEAM. Delete current removable media set-up and create a new with the correct drive letter. See chapter 6.2-When used with Bever Win2000 operating system

5.4 Format error, Windows

If trying to read the content of the memory stick from “My computer” gives an error message, the memory stick has to be formatted.

5.4.1 Memory sticks used as replacements for memory card:

Right-click the removable disk in “My computer” and select Format. Make sure that file system is FAT and use volume names as DATA1, DATA, System11232 and so on. See figure 1.
After a Windows format, the memory stick must be formatted from Bever TEAM also.



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5.4.2 Memory sticks used with Bever Win2000NT system

Same as above but has to be done on a Windows NT PC. For instance it can be done in the jumbo.

Figure 1, Windows formatting

5.5 Format error, Bever TEAM

This applies only to memory sticks replacing the old memory cards. If the memory stick doesn't work, but can be seen from the Explorer without error message, then it must be formatted from Bever TEAM. This can be done for instance by selecting profiler log listing, click the "+" and the "From media". Then click button "Format" See figure 2.

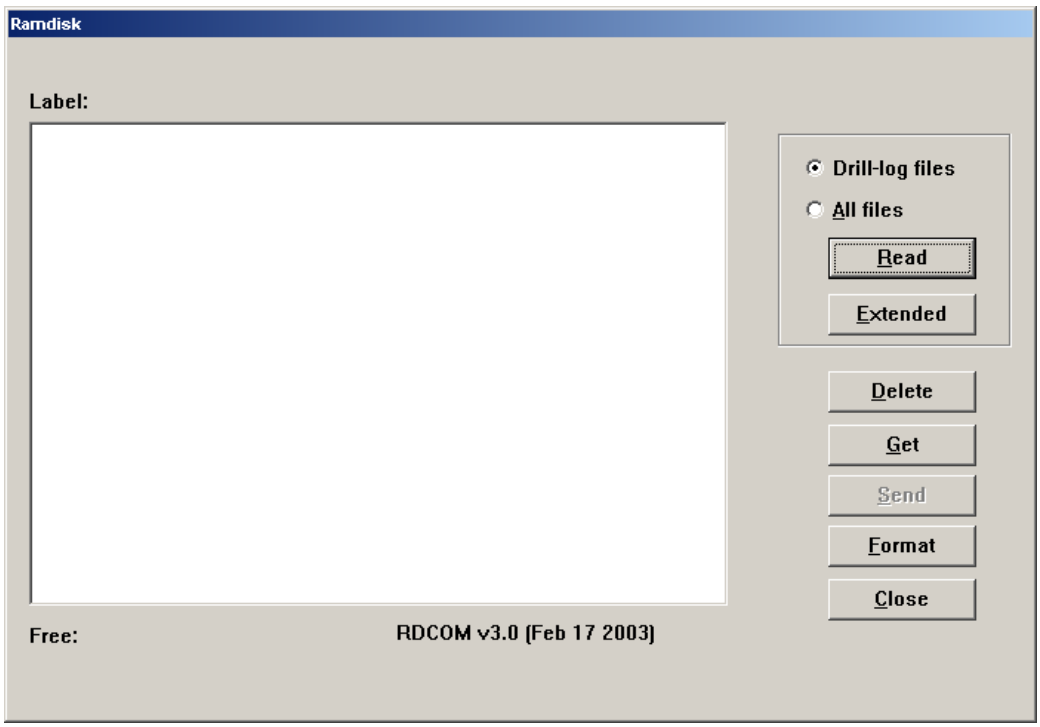

Figure 2, Memory stick- formatting

6 Installation in the office

6.1 When replacing memory card

The old memory card reader shall be disconnected from the computer. A docking station for the memory stick can be connected to an USB connector or the memory stick can be connected directly to the computer.

Follow the procedure in chapter 4.2–First time use of a memory stick **before installing the new version of RDCom.exe.**

To use the new memory stick instead of the old memory card makes it necessary to exchange all versions of RDCom.exe in the computer. This is done with the program RDComForDiskOnKey.exe, found on the enclosed CD. This program searches through the hard disk and asks for confirmation before exchanging RDCom.exe files. Insert a memory stick in the computer before the program is started, so that the installation program finds the drive letter when searching for removable disks. The chosen drive letter is inserted in the file C:\Windows\RDCom.ini by the installation program.

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With two versions of Bever TEAM, one with an old version of RDCom.exe and one with the new version, it's possible to use memory card and memory stick both.

6.2 When used with Bever Win2000 operating system

Bever TEAM needs to know the drive letter. This is done by first inserting a memory stick in the computer. Then continue with selecting Setup – Removable Media – Add – Continue. Type a suitable name for the removable disk, for instance DiskOnKey. Select Continue and then Browse for selecting drive letter. Click Finish and set the new connection as default.

7 Installation of hardware in the jumbo

This new version is made so that it's very simple to do the upgrade in the jumbo. The cable in the old reader is disconnected. The original box is removed, and the new one is mounted. The wires are connected to terminals in the new box. See description below.

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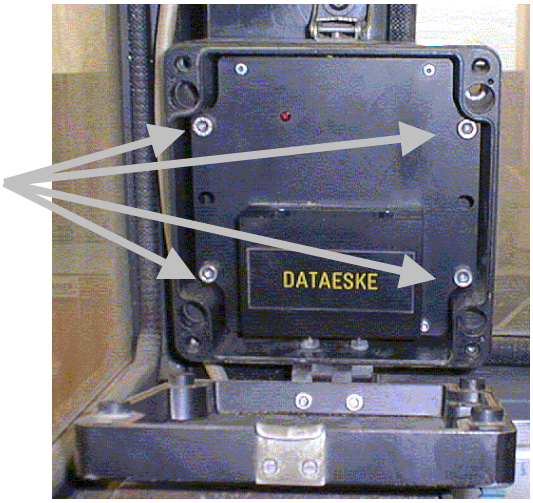
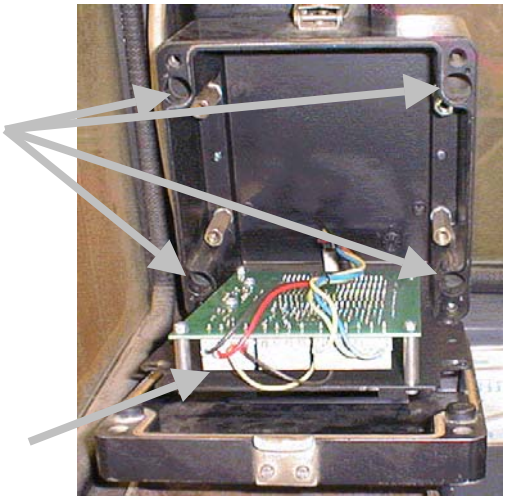
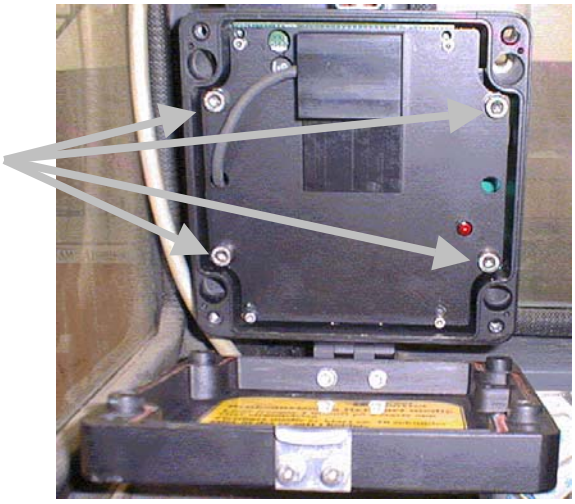
1. Memory card reader in the jumbo



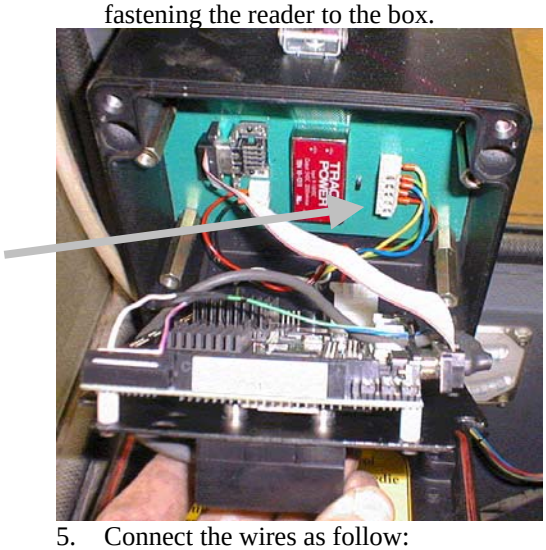
2. Remove the 4 screws fastening the reader to the box.



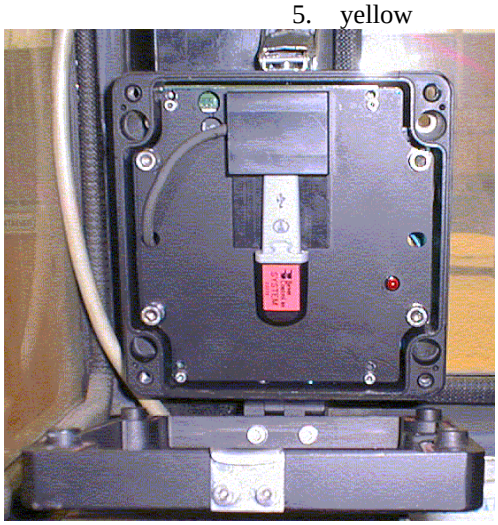
3. Cut the wires close to the terminals. Pull out the cable and remove the old box. Strip the end of the wires before the new box is mounted to avoid metal parts short circuiting anything on the new card.



4. Fasten the new box. Unscrew the 4 screws fastening the reader to the box.



5. Connect the wires as follow:
    1. red
    2. black
    3. blue
    4. green
    5. yellow



6. Fasten the reader and test with a memory stick.

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